

CONSTRUCTION VALUE ENGINEERING CONCEPT PROPOSAL  
MISSOURI DEPARTMENT OF TRANSPORTATION

# 2

Date 06/10/2009

Contract ID 070928-X01

Job No. J0P0928

County Madison

Route 67

Original Bid Cost \$37,597,624.33

Contractor Emery Sapp & Sons

By Matthew Oesch

Designed By Matthew Oesch

Phone (573) 489-9216

VECP 09-45

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

Emery Sapp & Sons propose to adjust the saw cuts further south from 497 +00 to 497 +73 on the SBL and 497 +00 to 497 +65 on the NBL. The value engineering proposal will increase savings, increase motorist safety, provide greater depth concrete under the new mainline and shoulders, and further expedite completion of the new SBL

2. Estimate of reduction in construction costs.

\$15,523.83

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

By adjusting the tie-in pavement depth will be 12" vs. 9" under original design. The VE will also provide thicker concrete in the shoulders for the adjusted area helping increase strength. The deeper concrete should provide better support reducing overall maintenance.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

06/10/2009

(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

06/19/2009

(date)

Provide ample time to demo and grade ahead of paving spread

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

N/A

(date and/or dates)

**Additional Comments:**

A letter with detailed explanations of the modifications and spreadsheets detailing cost savings will be included.

**\*\* Portion Below This Line To Be Filled Out by MoDOT \*\***

Comments:

Matt Mahan

Submitted By Resident Engineer

6-12-09

Date

Comments:

50/50 split

- ☒ Approval  
Recommended  
☐ Rejection  
Recommended

Mark Shelton by P. J. [Signature]

District Engineer

6-15-09

Date

Comments:

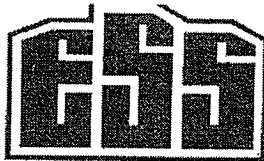
- ☒ Approval  
Rejection  
☐ Rejection

David D. [Signature]  
State Operations Engineer BAW

6-26-09

Date

Distribution: Resident Engineer, District Operations Engineer, State Operations Engineer  
\*Vulco Engineering Administrator - \*MoDOT, P.O. Box 270, Jefferson City, MO 65102



EMERY SAPP & SONS, INC.

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June 29, 2009

Mr. Matt Malone, R.E.  
Missouri Dept. of Transportation  
105 Industrial Dr.  
Park Hills, MO 63601

**RE: Value Engineering Proposal 6 – Tie-in Adjustment at 497+00 for NBL & SBL  
Rte. 67, Madison County,  
Job No. J0P0928**

Mr. Malone:

This letter is written in proposition of a Value Engineering proposal to adjust the tie-in locations on the new north and south bound lanes where they meet the existing four lane. Emery Sapp & Sons proposes adjust the saw cuts further south from 497+00 to 497+73 on the SBL and 497+00 to 497+65 on the NBL.

Under original design it is required that the NBL and SBL be tied back into the existing four lane at station 497+00. The existing SBL is paved out to station 497+87 and the NBL is paved out past 499+00 with 12" PCCP at approximately 38 ft wide.

Emery Sapp & Sons proposes to adjust the saw cut mark further south from 497+00 to 497+73 on the SBL and 497+00 to 497+65 on the NBL. Adjusting the tie-in point will produce a cost savings of \$15,523.83 by eliminating an extra 138 ft of 9" PCCP main line paving, Type 5 base, A3 Shoulder, and Daylight of Type 5 Base. Adjusting the saw mark will help further expedite the paving and opening of new the SBL as well. By moving the tie-in to 497+73 on the SBL workers and equipment will be operating further away from live traffic increasing safety for motorist and work zone employees alike. The existing pavement from 497+00- 497+73 on the SBL and 497+00- 497+65 on the NBL is 12" PCCP which is thicker than the designed 9" PCCP that would be put back in its place. The existing lanes also have full depth shoulders which should be considerably stronger than the 4" A3 Shoulder that would take their place. No disadvantages are foreseen from adjusting the tie-in locations further south to 497+73 and 497+65.

In conclusion the value engineering proposal will increase savings by \$15,523.83, increase motorist safety, provide greater depth concrete under the new mainline and shoulders, and further expedite completion of the new SBL.

Sincerely,

*Matthew Oesch*

Emery Sapp & Son Inc.

# Value Engineering Proposal #5 - Adjust Tie-in Point Forward from 497+00 to 497+73

## Concrete Main Line Pavement

9" Concrete Pavement =	\$25.60 SY	
497+00 - 497+65 NBL	187.78 SY =	\$4,807.11
497+00 - 497+73 SBL	210.89 SY =	\$5,398.76
Total Cost of Concrete =		\$10,205.87

## Type 5 Base Under Main Line ONLY

Unit Cost Type 5 Base =	\$3.40 SY	
497+00 - 497+65	260.0 SY =	\$884.00
497+00 - 497+73 SBL	292.0 SY =	\$992.80
Total Cost of Base Rock =		\$1,876.80

## A3 Shoulder

Inside Shld NBL	21.7 SY at \$17.60 SY =	\$381.33
Outside Shld NBL	50.6 SY at \$17.60 SY =	\$889.78
Inside Shld SBL	24.3 SY at \$17.60 SY =	\$428.27
Outside Shld SBL	56.8 SY at \$17.60 SY =	\$999.29
Total Cost A3 Shld =		\$2,698.67

## Daylight Base

NBL Shoulder	0.65 STA at \$550.00/ STA =	\$357.50
SBL Shoulder	0.7 STA at \$550.00/ STA =	\$385.00
Total Cost Daylight Base =		\$742.50

Total Savings = \$15,523.83

# VALUE ENGINEERING CHECK SHEET

## TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- ☒ Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. \_\_\_\_\_

## SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

Contractor proposes to adjust the saw cuts for tie-ins in both the NBL and SBL leaving thicker 12" concrete in place than the designed 9" pavement. This also increases safety by having more area to tie-in the new pavement. This is a 50/50 split.

## SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

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